

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on line 26 of page 5 with the following:

The second circuit 6 and the third circuit 7 provide for manual backup braking for all four vehicle brake actuators 11a, b, c, and d, as will be discussed in detail below. The source of pressurized brake fluid for the second circuit 6 and the third circuit 7 is a manually operated master cylinder within the BPU 10. The master cylinder within the BPU 10 is operated by a brake pedal 14 to supply pressurized brake fluid to a first manual backup brake circuit via a first conduit 16 and a second manual backup brake circuit via a second conduit 17. The master cylinder of the BPU 10 is preferably ~~includes~~ a tandem master cylinder, having two service pistons, but the master cylinder may be of any suitable design, such as a single piston or triple piston design. In addition the master cylinder may integrate or work with a pedal simulator unit. The pedal simulator unit includes a plurality of spring loaded pistons, expansion volumes, damping orifices, and valves which work in cooperation to selectively control the flow of brake fluid to and from the pedal simulator unit to provide a typical brake pedal response during vehicle braking. The brake pedal 14 may be provided with a brake pedal detector 18 to detect the movement of the brake pedal 14. The brake pedal detector 18 may be a switch which actuates the brake lights (not shown), or acts as an input to the control module 13 to indicate that the brake pedal 14 is depressed. The brake pedal 14 is also preferably coupled to a displacement transducer 19 producing a signal indicative of how far the brake pedal 14 is depressed, which is indicative of brake demand by the operator. The signal produced by the displacement transducer 19 is input to the control module 13. A reservoir 20 is provided which communicates with the first brake circuit 4, the second brake circuit 6, and the third brake circuit 7 through the BPU 10 in the ordinary manner. The reservoir 20 is preferably a triple chamber design, as appropriate, and indeed may have any suitable number of chambers.